# *Tasks to be performed*

***Date : 05-12-2023***

## *Topics covered: Linux and Servers*

### SSH CONFIGURATION

Launch two instances by the name of **"exam machine"** and **"dns server"** by creating a new key pair with the name of **"exam_key"**.

Login into both AWS instances and change the necessary configuration in the ssh configuration file.

Set the root password as **"redhat@123"** and the ec2-user password as **"redhat@321"**.

[ BELOW TASKS WILL BE PERFORMED ON "exam machine" ]

Configure the settings of SSH in such a way that the client system can only connect remotely by accessing port 2222 of your machine.

Restart the service to initialize changes in the machine.

Save the public IP address of the second machine [ DNS server ] in file named /root/pubip.txt[compulsory].

### USER ADMINISTRATION

Create 5 users by the name of virat rohit dhoni shami pandey respectively. Set their password as north@south.

Configure settings in such a way that Dhoni user should not be able to login in your system, virat and rohit would be member of group "India", shami and dhoni are member of group "Bharat", pandey will me member of group "team".

Configure settings in such a way that Members of group "team" should not be able to take remote login on your system.

Password for user shami should be expired on 25th December 2023.

Configure settings in such a way that passwords of users further going to be created should be expire within an year after creation.

Permanently change the settings in such a way that no mail file would be created for further users going to be created.

### PERMISSION

Create Three directories game, cricket, movies respectively in /root. Ownership of game directory should be held with user virat also Game directory can only be accessible by member of group "india" and no other users apart from dhoni. [ create groups if not present ]

Configure settings of the system in such a way that all local users can use systemctl command as a normal command without any sudo privilege.

Also change the setting of game directory so that group ownership of content created below game directory should be given to group india.

Virat user will have sudo privilege in the system apart from useradd, usermod, and userdel command. Also members of group “Bharat” will enjoy sudo privilege.

**OTHER ADMINISTRATION**

You are the linux Administrator of the company. Generate a report which states the condition of all processes. Save it as /root/movies/process.txt.

Run “dd if=/dev/zero of=/dev/null &” command three times on terminal. Set Priority of any one dd command at highest.

Kill all the processes run by dd command by using one command only. Make sure output of this command should not be visible on terminal instead it should be saved in /root/movies/killed.txt .

Generate backup of configuration data of your system in /root/movies/backup directory by using tar with compression method Gzip. [ create backup directory ]

Restore the backup you have created at /usr/configuration directory [ create if not present ]

Generate customised log file by the name of “pressure” under /var/log in such a way that all the logs related to user authentication will be saved here.

**STORAGE MANAGEMENT**

Attach additional hard disk with the size of 2 GB to the instance and create 6 partitions by using fdisk command. Size would be 500M 250M 250M 400M 400M 200M respectively.

Partition 1 should be used as swap partition of your system.

Partition 2, 3 and 4 should be initialise as physical volume in order to create volume groups.

Create volume group “VG1” with a size of 400M and volume group “VG2” with a size of 300M. but the extents size of “VG2” should be 8Mib.

Create Logical volume “LV1” with a size of 50 extents. It should be created from “VG1”.

Add xfs file system to “LV1” and mount it to /prod [ create mount point if not present ]

Create another Logical volume “LV2” with a size of 150M. it should be created form “VG1”

Add ext4 file system to “LV2” and mount it to /test [ create mount point ]

Extend “LV1” upto the size of 400M. if sufficient size is not available extend volume group “VG1” by adding physical volume 4 in “VG1”. Also extend file system by using suitable command.

## NFS SERVERS

Configure your current machine as NFS client and configure second machine [ “dns server” ] as NFS server. The directory going to be shared will be named as **/Exams**. And this directory can be accessible by NFS clients with the name of **/paper.** Make sure the root user can make changes on the remote directory.

## WEBSERVER AND DNS SERVER

Configure second instance [ “DNS server” ] as DNS server by using package named bind. Mentions two subdomains while mapping IP’s i.e., aarambh and job with your domain. These two sub domains will also be mapped with the same IP from which main website is mapped.

Configure the current machine [ exam machine ] as a web server by using Apache httpd. Configure name-based virtual hosting on the current machine by creating subdomains of your domain name by the name of **aarambh.yourdomain** and **job.yourdomain** .

Document root for aarambh.yourdomain would be /var/www/aarambh and for job. yourdomain would be /var/www/job.

Content should be visible on your main domain will be downloaded as zip from https://www.free-css.com/assets/files/free-css-templates/download/page296/healet.zip.

Content should be visible on aarambh.yourdomain will be downloaded as zip from https://www.free-css.com/assets/files/free-css-templates/download/page296/little-fashion.zip.

Content should be visible on job.yourdomain will be downloaded as zip from https://www.free-css.com/assets/files/free-css-templates/download/page296/finexo.zip.